J. GEISENBERGER.

GAS APPARATUS.

No. 181,666. Patented Aug. 29, 1876.

Fig. 1.

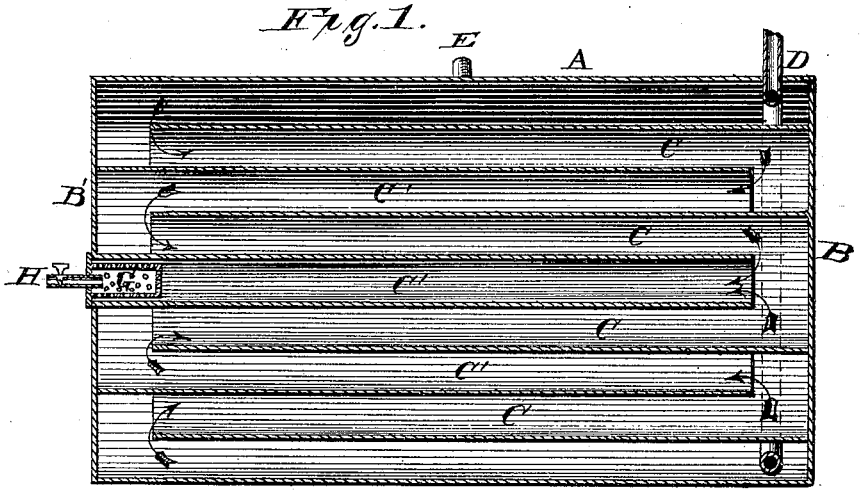
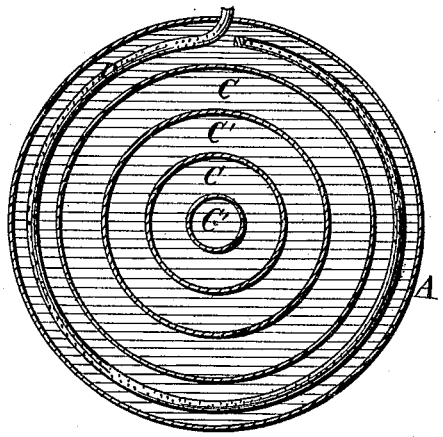


Fig. 2.



WITNESSES

Franck L. Oxrand,

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JOSEPH GEISENBERGER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO PATRICK GORMLY, SR., AND ISAAC GEISENBERGER, OF SAME PLACE.

IMPROVEMENT IN GAS APPARATUS.

Specification forming part of Letters Patent No. **181,666**, dated August 29, 1876; application filed August 17, 1876.

To all whom it may concern:

Be it known that I, JOSEPH GEISENBERGER, of Philadelphia, in the county of Philadelphia, and in the State of Pennsylvania, have invented certain new and useful Improvements in Gas Apparatus; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to carbureting gas apparatus; and it consists in the construction and arrangement of the carbureter, whereby the air is forced to travel back and forth, and become thoroughly impregnated with the hydrocarbon, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a longitudinal section of my invention. Fig. 2 is a cross-section of the same.

A represents a hollow cylinder of any suitable dimensions, provided with heads B B′, made fast thereto. The head B is provided with two or more concentric cylinders, C C, made fast thereto, and extending nearly to the head B′. This head B′ is provided with two or more similar concentric cylinders, C′ C′, fitting within the cylinders C C, and extending nearly to the opposite head B, as shown. Within the cylinder A, next to the head B, is a circular perforated pipe, D, through which the air is forced into the carbureter. At the bottom of the center cylinder C′ is placed a strainer, G, with outlet-pipe H passing through the head B′.

The entire carbureter, thus constructed, is to be packed full with sawdust and gasoline, or other similar volatile hydrocarbon liquid is admitted, through the inlet E at the top, until the sawdust is completely saturated therewith. Air being then forced through the pipe D, escapes into the space between the exterior shell or cylinder A and the first cylinder C, passes to the other end of the carbureter, where it enters the said first cylinder C, and returns to the head B. At this point it enters the first cylinder C′, and so on, alternately back and forth, until it enters and passes through the last cylinder C′, and out through the pipe H, the air, during its course, becoming thoroughly impregnated with the hydrocarbon. Whenever necessary a fresh supply of gasoline is readily admitted.

Instead of concentric cylinders I may use radial wings, extending alternately from one head to near the other, and admit the air at one end of one of the triangular spaces thus formed, and cause it to pass back and forth in the same manner.

It will be seen, by my construction of apparatus, that the perforated air-pipe lies between the outer shell and the first partition or cylinder. Hence, the air is passed into the largest space within the case or cylinder first, and, after transmission back and forth between the inner spaces, has its exit through the smallest space last. By this means refrigeration of the material is prevented.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of the hollow case A with liquid-pipe E, the series of partitions or cylinders C and C′, connected, respectively, to the heads B and B′, the perforated air-pipe D, extending entirely around the interior of one end of the same between the outer case and the first partition or cylinder, the strainer G, and gas-pipe H, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of August, 1876.

JOSEPH GEISENBERGER.

Witnesses:

L. EISINGER,

C. L. EVERT.